



Operations Report

Andy Hocker

08-MAY-2003

CDF Weekly Meeting



This Week's Stores (records in green)

Date	Store	Duration (h)	Inst Lum (initial)	Int Lum (delivered)	Int Lum (live)	ϵ
Fr 5/2	2502	18.3	44.4e30	1645.6	1401.2	85.1%
Sa 5/3	2503	13.9	41.9e30	1324.1	1208.7	91.2%
Sa 5/3	2505	15.8	43.5e30	1497.6	1146.8	76.6%
Su 5/4	2507	16.8	39.0e30	1462.5	1344.9	92.0%
Mo 5/5	2509	16.4	39.6e30	1394.4	1309.4	93.9%
Tu 5/6	2511	4.9	43.8e30	617.2	480.1	77.8%
We 5/7	2521	17.0	41.5e30	1450.9	1311.3	90.2%

8.2 pb⁻¹ out of 9.4 pb⁻¹ (87%) --- all of it with silicon



Accelerator Status

- Settled into a nice repetitive high-lumi stack-and-store rhythm
- But they still broke a few things.... like RECORDS!
 - Weekly integrated delivered luminosity: 8.4 pb^{-1}
 - Initial instantaneous luminosity: $42.4 \text{e}30 \text{ cm}^{-2}/\text{s}$ (CDF/D0 avg.)
- TeV tried studies while rebuilding the stack after Tuesday's abort
 - Spent most of the time chasing low-beta quad problems, though
- Came back with another $>40 \text{e}30$ store
- Losses have been fine for weeks

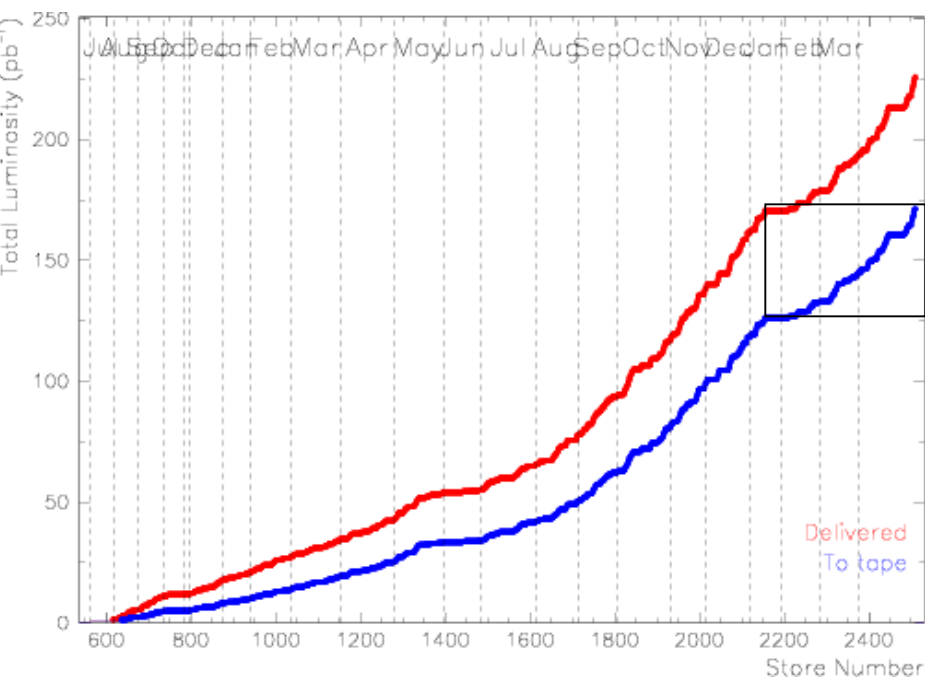


CDF Issues

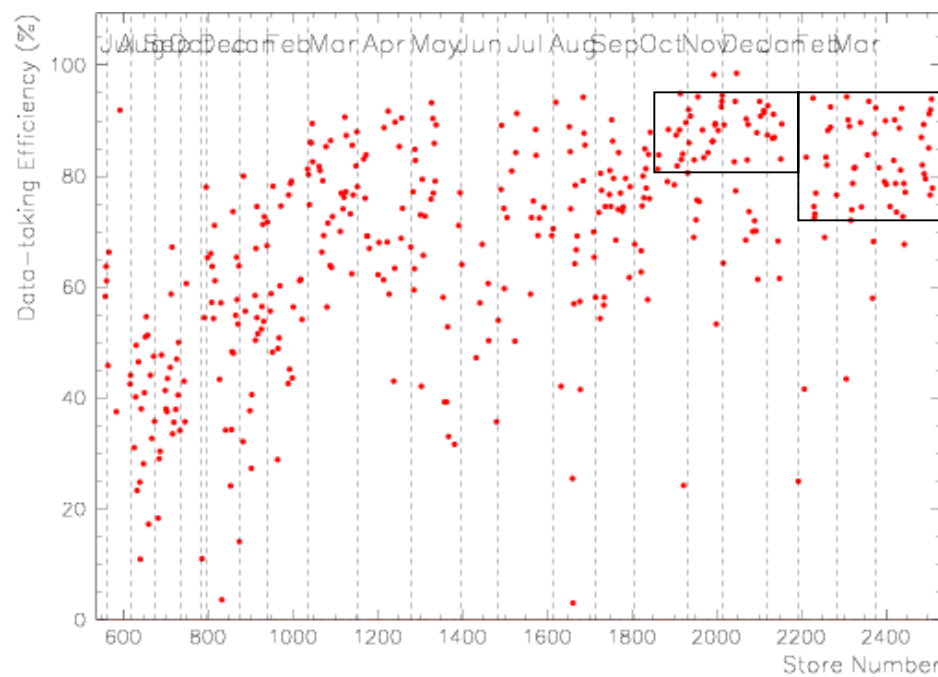
- No big sources of operational downtime
- So, concentrate on the small, chronic downtime sources
 - BUSY deadtime at beginning-of-store
 - CSL bandwidth limit is ~ 20 MB/s, but 17 MB/s when copying files to the look area (storms of 10-20% deadtime)
 - Mitigated by disabling copy until later in the store --- to be fixed by moving copy job to different machine
 - We're still at the 20 MB/s limit (chronic 3-4% deadtime) --- must reduce the L3 output event rate/size (wheels are in motion)
 - HRRs (deadtime difficult to quantify, something like 1-2%)
 - DAQ group investigating the biggest sources (e.g. bunch counter mismatches)
 - Note silicon no longer the bad guy (buffed FTMs)
 - Startup time (losses decision, Si ramp) --- ~ 15 min, now ~ 7 min



Since January....



~50 pb⁻¹ to tape



efficiency still needs work!



Conclusions

- TeVatron, CDF running under the closest thing to steady-state operation I've ever seen
- Keep it up and make it better
 - Plan is stack-and-store this week and next week
 - No studies 'til week of 19-MAY